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

Article Summary and Analysis

*Before you read your article, read through the assignment below.*

*Then,* ***underline, highlight and/or annotate*** *the important statements in the article.*

Answer the following questions using statements or facts from the article to support your answers.

1. How has average atomic weight (atomic mass) been calculated until now?
2. Explain why this process is flawed. (What have scientists found in the last 50 years?)
3. Describe the process of physical and chemical fractionation.
4. Briefly describe the two physical and chemical fractionation examples given in the article.
5. Describe at least 2 examples of how variation in isotope ratios can be helpful to scientists.
6. How will atomic weights (atomic masses) be expressed on the periodic tables of the future?
7. Do you think the information presented in this article is reasonable or reliable? Provide at least 2 specific reasons (use information in the article) to support your answer.

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| --- |
| 8. **Identify the topic** of the article (1 or 2 words stating what the article is about) |
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| 9. Accurately summarize the main idea of the article (state what the author is telling you ***about*** the topic in one sentence). **Include author name and title of article in this sentence.** |
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| 10. **Summarize the most important key statements** (at least 3 or 4) used by the author to **explain/support the main idea**. The connection between the key statements and the main idea should be obvious and clear and **include data or facts**. |
|  |

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

Article Summary and Analysis Part 2

|  |  |
| --- | --- |
| 1 . Find a **reliable** research article that **supports or rejects** the main idea or key statements from your original article.  Write a properly formatted APA bibliography for the research article. **Attach the first 2 pages of the research article**. | |
| 2. Determine the reliability of the article using the CARS checklist.  Evaluate the article in 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 | **Is article credible?** |
| A | **Is information accurate?** |
| R | **Is information reasonable?** |
| S | **Is information supported?** |
| 3. Overall, is the information in this article reliable? Explain your answer. | |

|  |  |
| --- | --- |
| 4. Compare statements from your original article with statements from your research article that demonstrate support or rejection of the main idea or key statements. | |
| Write 3 key statements from the **original article** that are supported by the research article. | Write 3 key statements from the **research article** that are aligned with the key statements from the original article. *Make sure all key statements are highlighted within the research article.* |
| 5. Does your research article have enough information and enough detail to validate the main idea and key statements from the original article? Explain using examples from above. | |