

# September 15, 2018

# Article Dissection Toolkit

### Article Review: Q

**Directions: Read a *Science News* (*SN*) article in the most recent issue, then answer the following questions.**

**Making initial connections:**

**1. Based on the article’s title, what background knowledge, if any, do you have about the topic?**

**2. What do you want or expect to learn from the article?**

**Summarizing and citing evidence and structure:**

**3. Scientists frequently use specialized vocabulary and symbols, or assign new or specialized meanings to ordinary words (e.g., gene “expression”). Define any important specialized terms, symbols or phrases mentioned in the article. Use the article’s contextual clues to determine definitions or look up definitions elsewhere.**

**4. Summarize the article’s central idea in two sentences or less, then list the other relevant details and topics covered in the article.**

**5. What evidence does the article provide to support its central idea? How well does that evidence support the central idea? Why would the author have included that particular evidence, but not other evidence that you might know about?**

**6. Good scientists acknowledge the assumptions on which their work is founded, the limitations of their results, and data or theories that may contradict their own. What, if any, inconsistencies or uncertainties does the article mention?**

**Integrating and evaluating sources:**

**7. Scientists present their detailed results in primary research articles in scientific journals and/or presentations or posters at scientific conferences. *SN* and other news outlets then report some of those results for a wider audience.** **Citations of the primary research studies are listed and linked at the end of the *SN* article online. What specific scientists, primary research studies, scientific conference presentations and other sources does the *SN* article quote, mention or cite?**

**8. How well does the *SN* article explain the scientific work? Does it clearly explain the purpose, methods, results and implications of the scientific work? Does it leave out some details? If details are not included in the *SN* article, why do you think that decision was made by the journalist?**

**9. Compare and contrast the findings in the *SN* article to findings from a second source, which can be a primary research study cited in the *SN* article, a related *SN* video, a related article from the *SN* archive or an article from a different news source that covers the same research. What are important similarities and differences between the sources? What new things have you learned from fitting all of the information together?**

**Analyzing content:**

**10. Seeing information from the article presented visually can help you better understand the article. It also makes it easier to present key findings discussed in the article to others, as you would in class or as scientists would at conferences.** **Present the main ideas, experiments or results discussed in the article as a diagram, chart, graph, table or flowchart.**

**11. Why should people care about the article? What is the importance, impact or significance of the article for you, for your community or for the scientific community?**

**12. Based on information in the article or on your own ideas, in what direction(s) could this scientific work go in the future? What practical applications could the research have?**

**13. What questions remain unanswered and what new questions need to be addressed?**

**14. What related work might you or other students be able to do, perhaps as a science fair project?**

**NGSS-specific questions:**

**15. Circle or highlight scientific processes that are covered in the article. Such processes may include asking questions and defining problems, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructing explanations and designing solutions, engaging in argument from evidence, obtaining, evaluating, and communicating information. Cite an example from the text for one of the processes.**

**16. Explain how the article represents one of the following concepts: patterns; cause and effect; scale, proportion or quantity; systems and system models; matter and energy; structure and function; rates of change and stability of a system.**



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