



## Evaluating Science in the News

### OVERVIEW

Science news articles are a great way to learn about new ideas, discoveries, and research. However, it's important to evaluate the authority and credibility of sources of information. In this activity, students practice their reading comprehension and source evaluation skills by answering a series of questions about a science news article. They then synthesize their answers to determine whether the article is trustworthy. This activity can be used with any print or online news articles, including BioInteractive's [Science News](#).

Two versions of the "Student Handout" are available for this activity. The short handout focuses on evaluating a science news article, and the extended handout also has students respond to the ideas presented in the article. The additional "Criteria for Evaluating Sources" handout provides more questions for evaluating sources of information based on the CRAP (Currency, Reliability, Authority, and Purpose) test.

Additional information related to pedagogy and implementation can be found on [this resource's webpage](#), including suggested audience, estimated time, and curriculum connections.

### KEY CONCEPTS

- Sources of information, such as news articles, must be evaluated to determine whether they are trustworthy.
- Sources of information can be evaluated based on their currency, reliability, authority, and purpose.

### STUDENT LEARNING TARGETS

- Evaluate the currency, reliability, authority, and purpose of a source of information.
- Justify the reasoning used to determine whether a source of information is trustworthy.
- (extended handout only) Identify the main idea and supporting details of a science news article.
- (extended handout only) Respond to the ideas presented in a science news article.

### PRIOR KNOWLEDGE

Students should be familiar with:

- reading and interpreting news articles
- (extended handout only) writing and revising based on a rubric

### MATERIALS

- either version of the "Student Handout"
- "Criteria for Evaluating Sources" handout
- science news articles to analyze

### TEACHING TIPS

- This activity can be done as a standalone activity, in conjunction with a current unit of study, or at the beginning of a research project.
- The **short "Student Handout"** has students answer some questions about a science news article, then use their responses to evaluate the article's trustworthiness.
  - This handout can be completed in about 30 minutes. It can be used alone or with any other reading guide, questions, discussion preparation, or activities for the article.

- The **extended “Student Handout”** includes many components of the short handout, in addition to questions that allow students to continue analyzing the article. Students reread the article to identify main ideas and supporting details, then write a paragraph in which they personally relate or react to the ideas in the article.
  - This handout can be completed in one to two 50-minute class periods. Part of the handout could be assigned as homework. More time may be needed for long or complex news articles.
  - Step 7 in the extended handout provides several guiding questions for responding to the content of the article. You may want to assign a specific question for students to focus on.
  - The end of the extended handout includes a rubric for assessing performance on the activity. Students can use the rubric to assess and revise their responses (Step 8) before submitting their handouts.
    - You can modify this rubric as needed to, for instance, add additional criteria. Be sure to share your modified rubric with students.
      - If your students select their own articles, you might add a row to the rubric for evaluating their choice of article. If you require articles to be related to content covered in class, “High Performance” could correspond to choosing a related science article, “Medium Performance” to choosing a nonrelated science article, and “Low Performance” to choosing a nonscience article.
    - You may wish to assign specific points to each category in the rubric. If so, be sure to share your point scheme with students.
      - A possible point scheme is to make each row worth a maximum of 2 points (2 for high performance, 1 for medium, and 0 for low). You could assign fewer points to categories that are lower priority for your class, such as “Mechanics and grammar.”
- The **“Criteria for Evaluating Sources” handout** contains additional questions for evaluating the trustworthiness of a source. These questions are based on the CRAP (Currency, Reliability, Authority, and Purpose) test.
  - Encourage students to reference the additional questions in this handout. Students do not need to answer all these questions for this activity but should use them as guidelines for evaluating their articles. Different questions may be more or less important depending on their topic and needs.
  - Many versions of the CRAP test (also called the CRAAP test) exist. This handout is adapted from the [CSU Chico CRAAP Test](#); the [UC San Diego Library](#) and the [Ohio University Libraries](#) have similar versions.
  - There are many online guides and examples for how to apply the CRAP test. For instance:
    - The [“Evaluating Sources: C.R.A.P. Test”](#) webpage from the Houston Community College Libraries has a tutorial for the CRAP test and videos showing how the test can be applied to college-level research.
    - The [“Learn about Evaluating Sources: CRAP Test”](#) webpage from Colorado Community Colleges Online includes a narrated video presentation about evaluating websites using the CRAP test.
  - Consider introducing this activity with an overview of the CRAP test.
- This activity can be used with any print or online news articles, including blog posts. If needed, you can direct students to particular websites or provide them with printed articles or science magazines.
  - BioInteractive’s [Science News](#) section has many curated online articles from trusted news outlets, such as the [Associated Press \(AP\)](#) and [The Atlantic](#). Each Science News article is connected to specific BioInteractive classroom resources that you can use in conjunction with this activity.
  - Other sources of high-quality science news include the science sections of reputable news outlets, such as [The New York Times](#), and science magazines such as [Scientific American](#), [American Scientist](#), [New Scientist](#), [Smithsonian](#), and [Discover](#). You can use their online articles or collect print copies of the magazines from your community.
- You may let students choose their own articles or have each student use the same article.

- If all students are reading the same article, they can work in pairs, read out loud with their partners, and discuss the article as they go. At the end of the activity, have the class discuss their responses and questions — in particular, whether students agreed on the trustworthiness of the article.

## REFERENCES

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## CREDITS

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