

# Reading like a Scientist

## Knowledge Set Teaching Guide

*This Knowledge Set is designed to help students explore scientific texts, how to read them and their importance. As students progress through this set, they'll learn what distinguishes scientific reading from reading in other subject areas, with an emphasis on scientific publications. Students will also learn specific reading strategies to help them read scientific texts from a variety of sources, including news articles, textbooks and scientific journals. Finally, students will reflect on and evaluate the importance of scientific literacy in today's society.*

**Target Grades & Subject(s):** Grades 9-12; Science

### Learning Objectives

- Students will determine the central components of scientific texts to evaluate the effectiveness of different reading strategies when it comes to science. (CCSS RI.2)

### Before Teaching this Series

- Introduce this set by discussing how the general public interacts with and views science. Have students watch [this](#) video, which shows the impact that scientific misinformation can have on the public. After the video, ask students to share their reactions to the video and the potential effects something like this could have.

**Texts in this Set** (download texts [here](#))

Text 1: Why reading in science is different than other subjects (2 pages)	
This article outlines how reading scientific texts is different than reading texts in other subject areas. By highlighting the unique features of scientific texts, the article helps students understand how to approach reading a scientific text, whether it be a current event article, scientific publication or textbook section.	<u>Discussion Question:</u> - The author argues that reading in science is different than other classes. To what extent do you agree with this statement?
Text 2: How to read a scientific publication (3 pages)	
In this article, the author provides strategies to help students read and understand scientific publications. In addition, the author uses sensationalized news headlines to highlight the importance of being able to read scientific articles. This article builds on students' knowledge of the unique features of scientific texts highlighted in the first text. The instruction helps fully equip students with the reading skills necessary to successfully read about science.	<u>Extension Activity:</u> - Direct students to the following website ( <a href="https://ysjournal.com/read/">https://ysjournal.com/read/</a> ) and choose an article to read. Encourage them to practice the strategies they just learned about as they read. After reading, have students reflect on the experience with a partner.
Text 3: With science under siege in 2017, scientists regrouped and fought back: 5 essential reads (3 pages)	
The final article in this set describes the perception of science and scientists in today's society. This article provides broader context for students in order to help them understand the value of building their scientific reading skills as members of society. After reading, students will reflect on and evaluate the importance of scientific credibility.	<u>Discussion Questions:</u> - Is it important for everyone to be scientifically literate? - What role do scientists play in maintaining scientific credibility? What role does the public play?